Docket No.: 59559.8009.US01
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

James F. Flack

Application No.: 09/328,053	Confirmation No.: 6268
Filed: June 8, 1999	Art Unit: 2629
For: MOTION DRIVEN ACCESS TO OBJECT VIEWERS	Examiner: Kent Wu Chang

APPEAL BRIEF

MAIL STOP: APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

As required under 37 C.F.R. § 41.37(a), this brief is in furtherance of the Notice of Appeal in this application filed on December 20, 2007. The fees required under 37 C.F.R. § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37. The complete Table of Contents follows.

CONTENTS

I. REAL PARTY IN INTEREST

The real party in interest is Rembrandt Technologies, LP, of Pennsylvania, USA.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

Appellant is not aware of other appeals, interferences, or judicial proceedings which would have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

The application was initially filed with 99 claims. Claims 1-99 are pending in this application. Claims 1-99 stand rejected under 35 U.S.C. § 103(a).

Claims 1-99 are the subject of the present appeal. The text of these claims is set forth below in the Claims Appendix.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to a Final Office Action dated July 2, 2007.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Overview of the Claims and Prior Art

1. The Claims

Applicant's claimed subject matter relate to a method and system for assisting a user in the control and operation of a computer system. The computer system includes a display device. The computer system further provides information content for display, such information potentially containing more content such as characters, pictures, lines, or pixels than can be conveniently displayed entirely on the display device at one time.

In some embodiments, the claimed subject matter couples a display device to a computer system [Specification, 10:24-25], maps the information content generated by the computer system into a virtual desktop suitable for conveying the information content to the user [Specification, 10-11], displays a certain portion of the virtual desktop using the computer system's display device [Specification, 12:27-29], and adjusts the displayed certain portion of the virtual desktop in a manner related to the tracked movements of the display device by which the user is able to traverse the entire information content mapped to the virtual desktop and examine any certain portion or segment of the information content using the computer system's display device [Specification, 11:27-28].

In one embodiment, the claimed subject matter discloses a hand-held computer system comprising a digital processor [Specification, 10:22-23], a motion sensor coupled to a display device [Specification, 12:20-21], the display device coupled to the digital processor [Specification, 10:21-22], a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device, displaying a certain portion of the virtual desktop via the display device, tracking translational movements of the hand-held computer system via the motion sensor, and updating the displayed

certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system [Specification, 11:25-30]

B. Independent Claims on Appeal

The rejected independent claims are directed to various methods and systems for visually navigating a virtual map generated by a physical map application executing upon a hand-held computer system. The independent claims are described as follows:

1. Claim 1

Claim 1 is directed toward a computer implemented method. The computer implemented method assists a user in the control and operation of a computer system. The method further couples a display device to a computer system, maps the information content generated by the computer system into a virtual desktop suitable for conveying the information content to the user, displays a certain portion of the virtual desktop using the computer system's display device, tracks translational movements of the display device, and adjusts the displayed certain portion of the virtual desktop in a manner related to the tracked movements of the display device by which the user is able to traverse the entire information content mapped to the virtual desktop and examine any certain portion or segment of the information content using the computer system's display device. [Specification, 10:20-31, 11:1-8]

2. Claim 32

Claim 32 is directed toward a method. The method facilitates visually navigating a virtual map generated by a physical map application executing upon a hand-held computer system. The method further transforms visual information generated by the physical map application into a virtual map suitable for display via the display device and displays a certain portion of the virtual map via the display device. The method further tracks translational movements of the hand-held computer system using the motion sensor and updates the displayed certain portion of the virtual map in a manner correlated to the tracked movements of the hand-held computer system. [Specification, 10:20-31, 11:1-8]

3. Claim 55

Claim 55 is directed towards a hand-held computer system. The hand-held computer system includes a digital processor and a motion sensor coupled to a display device coupled to the digital processor.

The hand-held computer system further includes a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device, displaying a certain portion of the virtual desktop via the display device, tracking translational movements of the hand-held computer system via the motion sensor, and updating the displayed certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system. [Specification, 10:20-31, 11:1-8]

4. Claim 83

Claim 83 is directed towards a hand-held computer system. The hand-held computer system includes a digital processor and a motion sensor coupled to a display device coupled to the digital processor.

The hand-held computer system further includes a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for a physical map application, transforming visual information generated by the physical map application into a virtual map suitable for display via the display device, displaying a certain portion of the virtual map via the display device, tracking translational movements of the hand-held computer system using the motion sensor, and updating the displayed certain portion of the virtual map in a manner correlated to the tracked movements of the hand-held computer system. [Specification, 10:20-31, 11:1-8]

5. Claim 99

Claim 99 is directed towards a hand-held computer system. The hand-held computer system includes a digital processor and a motion sensor coupled to the digital processor that is capable of sensing motion relative to a substantially planar surface. The hand-held computer system further includes a display device coupled to the digital processor.

The hand-held computer system further includes a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device, displaying a certain portion of the virtual desktop via the display device, tracking translational movements of the hand-held computer system via the motion sensor, and updating the displayed certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system in relation to a substantially planar surface. [Specification, 10:20-31, 11:1-8]

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The Issues on Appeal

The issues on appeal and the specific pending claims to which each relates are:

1. Whether under 35 U.S.C. §103(a) claims 1-3, 6-16, 19-32, 34-45, 47-50, 52-55, 58-68, 71-83, 86-96, and 99 are obvious over Motosyuku et al. (U.S. Patent No. 5,602,566) in view of Ball (U.S. Patent No. 5,686,942).

2. Whether under 35 U.S.C. §103(a) claims 4, 5, 33, 56, 57, 84, and 85 are obvious over Motosyuku in view of Ball, and further in view of Kang (U.S. Patent No. 6,009,210).

3. Whether under 35 U.S.C. §103(a) claims 17, 18, 46, 51, 69, 70, and 97-98 are obvious over Motosyuku in view of Ball, and further in view of Detlef (U.S. Patent No. 6,178,403).

VII. ARGUMENTS

A. Legal Standards for Obviousness

Claims 1-99 on appeal stand rejected as obvious under 35 U.S.C. § 103(a). 35 U.S.C. § 103(a) provides:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

To properly reject claims as obvious, "the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d (BNA) 1955, 1956 (Fed. Cir. 1993). To present a *prima facie* case of obviousness, the Examiner must show that "there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Relevant considerations may include "interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art." *Id.* The Examiner's analysis "should be made explicit." *Id.* "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal standard of obviousness." *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Under these standards, Appellant's claimed subject matter would not have been obvious. The Examiner has not identified references that disclose or suggest all the elements of the pending claims. Furthermore, the Examiner has not identified an apparent reason to combine the references in the manner recited in each of Appellant's claims. Therefore, the rejection of the claims should be reversed.

1. The Rejection of Claims 1-3, 6-16, 19-32, 34-45, 47-50, 52-55, 58-68, 71-83, 86-96, and 99 under 35 U.S.C. §103(a) over Motosyuku in view of Ball is Improper

a. The Examiner has failed to show how the combination of Motosyuku and Ball teaches or suggests all of the recited features of claims 1-3, 6-16, 19-32, 34-45, 47-50, 52-55, 58-68, 71-83, 86-96, and 99 and has thereby failed to establish a prima facie case of obviousness

i. Claim 1

Claim 1 includes a method for assisting a user in the control and operation of a computer system.

The teaching of Motosyuku and Ball fail to show at least three of the following presently claimed elements: 1) *mapping the information content generated by the computer system into a* ***virtual desktop*** suitable for conveying the information content to the user, 2) tracking the ***translational movement*** *of the* ***display device***, and 3) adjusting the displayed certain portion of the virtual desktop in a manner related to the ***tracked movements of the display device*** by which the user is able to traverse the entire information content mapped to the virtual desktop and examine any certain portion or segment of the information content using the computer system's display device.

With respect to the first element, the Examiner admits that Motosyuku does not clearly point out that the computer maps the information content to the virtual desktop. As Ball does not cure the deficiency, the Examiner relies on the alleged ordinary skill in the art at the time the invention was made. This allegation is unsubstantiated.

With respect to the second and third element, the Examiner admits that Motosyuku controls the display by the rotational movement instead of a translational movement, as claimed by Appellant.

However, it is the Examiner's position that Ball teaches a system to generate input data control a display based on the translational movement of the display relative to a reference target. The Examiner is mistaken. Ball's discussion is limited to tracking the motion of a user, rather than tracking the translational movement of the display device on which the virtual desktop is displayed, as evidenced by at least the following descriptions in Ball's document:

(i) "The motion of the nose 22 of the operator 12 is detected by a motion detector 24" (Col. 3, lines 28-29)

(ii) "The motion detector 24 converts the detected motion of the nose 22 and converts it into an output signal S1 which is sent to the computer 10" (Col. 3, lines 38-41)

Thus, Ball's discussion is limited to detecting the motion of the operator. Ball fails to disclose the teachings of tracking the translational movement of the display device and further adjusting the displayed certain portion of the virtual desktop in a manner related to the tracked movements of the display device.

Because the cited references do not teach all of the essential elements of claim 1, the Examiner has not established a prima facie case of obviousness for claim 1, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claim 1 based on references Motosyuku and Ball.

ii. Claim 32

Claim 32 includes a method for visually navigating a virtual map generated by a physical map application executing upon a hand-held computer system.

The teachings of Motosyuku and Ball fail to show at least three of the following presently claimed elements: 1) transforming visual information generated by the ***physical map application*** *into a virtual map* suitable for display via the display device, 2) tracking the ***translational movement*** *of the* ***hand-held computer system***, and 3) updating the displayed certain portion of the virtual map in a manner correlated to the ***tracked movements of the hand-held computer system***.

With respect to the first element, the Examiner fails to identify teachings in either Motosyuku or Ball's disclosure in support of the rejection. Indeed, neither Motosyuku nor Ball discusses transforming a physical map application into a virtual map, as claimed in Appellant's claim 32. Motosyuku's discussion is limited to displaying a list of items on a display screen as evidenced by at least FIG. 2 of reference Motosyuku. Yet further, Ball's discussion is limited to displaying icons within the display device, as evidenced by at least the following descriptions in Ball's document:

(i) "The picture shown in FIG. 1 contains several images 18, 20 within the picture. The images denoted by reference numeral 18 are icons which represent the different options …" (Col. 3, lines 10-12)

Thus, both Motosyuku and Ball fail to teach "transforming visual information generated by the ***physical map application*** *into a virtual map*".

With respect to the second and third element, the Examiner admits that Motosyuku controls the display by the rotational movement instead of a translational movement, as claimed by Appellant.

However, it is the Examiner's position that Ball teaches a system to generate input data control a display based on the translational movement of the hand-held computer system relative to

a reference target. The Examiner is mistaken. Ball's discussion is limited to tracking the motion of a user, rather than tracking the translational movement of the hand-held computer system on which the virtual map is displayed, as evidenced by at least the following descriptions in Ball's document:

(i) "The motion of the nose 22 of the operator 12 is detected by a motion detector 24" (Col. 3, lines 28-29)

(ii) "The motion detector 24 converts the detected motion of the nose 22 and converts it into an output signal S1 which is sent to the computer 10" (Col. 3, lines 38-41)

Thus, Ball's discussion is limited to detecting the motion of the operator. Ball fails to disclose the teachings of tracking the translational movement of the hand-held computer system and further updating the displayed certain portion of the virtual map in a manner correlated to the tracked movements of the hand-held computer system.

Because the cited references do not teach all of the essential elements of claim 32, the Examiner has not established a prima facie case of obviousness for claim 32, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claim 32 based on references Motosyuku and Ball.

iii. Claim 55

Claim 55 includes a hand-held computer system comprising a computer readable medium coupled to a digital processor.

The teachings of Motosyuku and Ball fail to show at least three of the following presently claimed elements of computer executable instructions on the computer readable medium: 1) mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device, 2) tracking the ***translational movement*** *of the* ***hand-held computer system*** via the motion sensor, and 3) updating the displayed certain portion of the virtual desktop in a manner correlated to the ***tracked movements of the hand-held computer system***.

With respect to the first element, the Examiner admits that Motosyuku does not clearly point out that the computer maps the information content to the virtual desktop. As Ball does not cure the deficiency, the Examiner relies on the alleged ordinary skill in the art at the time the invention was made. This allegation is unsubstantiated.

With respect to the second and third element, the Examiner admits that Motosyuku controls the display by the rotational movement instead of a translational movement, as claimed by Appellant.

However, it is the Examiner's position that Ball teaches a system to generate input data control a display based on the translational movement of the hand-held computer system relative to a reference target. The Examiner is mistaken. Ball's discussion is limited to tracking the motion of a user, rather than tracking the translational movement of the hand-held computer system on which the virtual desktop is displayed, as evidenced by at least the following descriptions in Ball's document:

(i) "The motion of the nose 22 of the operator 12 is detected by a motion detector 24" (Col. 3, lines 28-29)

(ii) "The motion detector 24 converts the detected motion of the nose 22 and converts it into an output signal S1 which is sent to the computer 10" (Col. 3, lines 38-41)

Thus, Ball's discussion is limited to detecting the motion of the operator. Ball fails to disclose the teachings of tracking the translational movement of the hand-held computer system and further updating the displayed certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system.

Because the cited references do not teach all of the essential elements of claim 55, the Examiner has not established a prima facie case of obviousness for claim 55, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claim 55 based on references Motosyuku and Ball.

iv. Claim 83

Claim 83 includes a hand-held computer system comprising a computer readable medium coupled to a digital processor.

The teachings of Motosyuku and Ball fail to show at least three of the following presently claimed elements of computer executable instructions on the computer readable medium: 1) transforming/mapping visual information generated by the physical map application into a virtual map suitable for display via the display device, 2) tracking ***translational movements*** *of the* ***hand-held computer system***, and 3) updating the displayed certain portion of the virtual map in a manner correlated to the ***tracked movements of the hand-held computer system***.

With respect to the first element, the Examiner fails to identify teachings in either Motosyuku or Ball's disclosure in support of the rejection. Indeed, neither Motosyuku nor Ball discusses transforming/mapping a physical map application into a virtual map, as claimed in Appellant's claim 32. Motosyuku's discussion is limited to displaying a list of items on a display screen as evidenced by at least FIG. 2 of reference Motosyuku. Yet further, Ball's discussion is limited to displaying icons within the display device, as evidenced by at least the following descriptions in Ball's document:

(i) "The picture shown in FIG. 1 contains several images 18, 20 within the picture. The images denoted by reference numeral 18 are icons which represent the different options …" (Col. 3, lines 10-12)

Thus, both Motosyuku and Ball fail to teach "transforming visual information generated by the ***physical map application*** *into a virtual map*".

With respect to the second and third element, the Examiner admits that Motosyuku controls the display by the rotational movement instead of a translational movement, as claimed by Appellant.

However, it is the Examiner's position that Ball teaches a system to generate input data control a display based on the translational movement of the hand-held computer system relative to a reference target. The Examiner is mistaken. Ball's discussion is limited to tracking the motion of a user, rather than tracking the translational movement of the hand-held computer system on which the virtual map is displayed, as evidenced by at least the following descriptions in Ball's document:

(i) "The motion of the nose 22 of the operator 12 is detected by a motion detector 24" (Col. 3, lines 28-29)

(ii) "The motion detector 24 converts the detected motion of the nose 22 and converts it into an output signal S1 which is sent to the computer 10" (Col. 3, lines 38-41)

Thus, Ball's discussion is limited to detecting the motion of the operator. Ball fails to disclose the teachings of tracking the translational movement of the hand-held computer system and further updating the displayed certain portion of the virtual map in a manner correlated to the tracked movements of the hand-held computer system.

Because the cited references do not teach all of the essential elements of claim 83, the Examiner has not established a prima facie case of obviousness for claim 83, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claim 83 based on references Motosyuku and Ball.

v. Claim 99

Claim 99 includes a hand-held computer system comprising a computer readable medium coupled to a digital processor.

The teachings of Motosyuku and Ball fail to show at least three of the following presently claimed elements of computer executable instructions on the computer readable medium: 1) mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device, 2) tracking ***translational movements*** *of the* ***hand-held computer system***, and 3) updating the displayed certain portion of the virtual desktop in a manner correlated to the ***tracked movements of the hand-held computer system***.

With respect to the first element, the Examiner admits that Motosyuku does not clearly point out that the computer maps the information content to the virtual desktop. As Ball does not cure the deficiency, the Examiner relies on the alleged ordinary skill in the art at the time the invention was made. This allegation is unsubstantiated.

With respect to the second and third element, the Examiner admits that Motosyuku controls the display by the rotational movement instead of a translational movement, as claimed by Appellant.

However, it is the Examiner's position that Ball teaches a system to generate input data control a display based on the translational movement of the hand-held computer system relative to a reference target. The Examiner is mistaken. Ball's discussion is limited to tracking the motion of a user, rather than tracking the translational movement of the hand-held computer system on which the virtual desktop is displayed, as evidenced by at least the following descriptions in Ball's document:

(i) "The motion of the nose 22 of the operator 12 is detected by a motion detector 24" (Col. 3, lines 28-29)

(ii) "The motion detector 24 converts the detected motion of the nose 22 and converts it into an output signal S1 which is sent to the computer 10" (Col. 3, lines 38-41)

Thus, Ball's discussion is limited to detecting the motion of the operator. Ball fails to disclose the teachings of tracking the translational movement of the hand-held computer system and further updating the displayed certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system.

Because the cited references do not teach all of the essential elements of claim 99, the Examiner has not established a prima facie case of obviousness for claim 99, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claim 99 based on references Motosyuku and Ball.

vi. Claims 2-3, 6-16, 19-31, 34-45, 47-50, 52-54, 58-68, 71-82, and 86-96

As discussed above with respect to independent claims 1, 32, 55, 83 which claims 2-3, 6-16, 19-31, 34-45, 47-50, 52-54, 58-68, 71-82, and 86-96 are dependent upon, respectively, the cited references Motosyuku and Ball do not teach all the subject matter recited in the independent claims. Thus, Motosyuku and Ball also do not teach all of the claimed elements in claims 2-3, 6-16, 19-31, 34-45, 47-50, 52-54, 58-68, 71-82, and 86-96.

Because the cited references do not teach all of the claimed subject matter of claims 2-3, 6-16, 19-31, 34-45, 47-50, 52-54, 58-68, 71-82, and 86-96, the Examiner has not established a prima facie case of obviousness for claims 2-3, 6-16, 19-31, 34-45, 47-50, 52-54, 58-68, 71-82, and 86-96, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claims 2-3, 6-16, 19-31, 34-45, 47-50, 52-54, 58-68, 71-82, and 86-96 based on references Motosyuku and Ball.

2. *The Rejection of Claims 4, 5, 33, 56, 57, and 84-85 under 35 U.S.C. §103(a) over Motosyuku in view of Ball and further in view of Kang is Improper*

a. The Examiner has failed to show how the combination of Motosyuku, Ball, and Kang teaches or suggests all of the recited features of claims 4, 5, 33, 56, 57, and 84-85 and has thereby failed to establish a prima facie case of obviousness

i. Claims 4, 5, 33, 56-57, and 84-85

As discussed above with respect to independent claims 1, 32, 55, 83 which claims 4, 5, 33, 56, 57, 84, and 85 are dependent upon, respectively, the cited references Motosyuku and Ball do not teach all the subject matter recited in the independent claims. Thus, Motosyuku and Ball also do not teach all of the claimed elements in claims 4, 5, 33, 56, 57, 84, and 85.

Kang was allegedly cited for additional subject matter recited in dependent claims 4, 5, 33, 56, 57, 84, and 85. Moreover, the Examiner did not point to anything in Kang as corresponding to the claimed subject matter taught in the independent claims. Thus, neither Motosyuku nor Ball nor Kang nor any combination thereof teaches the claimed subject matter of the independent claims 1, 32, 55, 83 or the dependent claims 4, 5, 33, 56, 57, 84, and 85. The Examiner has not presented a *prima facie* case of obviousness. Thus, claims 4, 5, 33, 56, 57, 84, and 85 should be allowed, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claims 4, 5, 33, 56, 57, 84, and 85 based on references Motosyuku, Ball, and Kang.

3. The Rejection of Claims 17-18, 46, 51, 69, 70, and 97-98 under 35 U.S.C. §103(a) over Motosyuku in view of Ball and further in view of Detlef is Improper

a. The Examiner has failed to show how the combination of Motosyuku, Ball, and Detlef teaches or suggests all of the recited features of claims 17-18, 46, 51, 69, 70, and 97-98 and has thereby failed to establish a prima facie case of obviousness

i. Claims 17, 18, 46, 51, 69, 70, and 97-98

As discussed above with respect to independent claims 1, 32, 55, 83 which claims 17, 18, 46, 51, 69, 70, and 97-98 are dependent upon, respectively, the cited references Motosyuku and Ball do not teach all the subject matter recited in the independent claims. Thus, Motosyuku and Ball also do not teach all of the claimed elements in claims 17, 18, 46, 51, 69, 70, and 97-98.

Detlef was allegedly cited for additional subject matter recited in dependent claims 17, 18, 46, 51, 69, 70, and 97-98. Moreover, the Examiner did not point to anything in Detlef as corresponding to the claimed subject matter taught in the independent claims. Thus, neither Motosyuku nor Ball nor Detlef nor any combination thereof teaches the claimed subject matter of the independent claims 1, 32, 55, 83 or the dependent claims 17, 18, 46, 51, 69, 70, and 97-98. The Examiner has not presented a *prima facie* case of obviousness. Thus, claims 17, 18, 46, 51, 69, 70, and 97-98 should be allowed, at least for the above stated reasons. The Appellant urges the Board to overturn the rejection of claims 17, 18, 46, 51, 69, 70, and 97-98 based on references Motosyuku, Ball, and Detlef.

In view of the foregoing remarks, Appellant submits that all of the pending claims are in condition for allowance and patentably defined over the prior art, and urge the Board to overturn the Examiner's rejections.

Dated: February 20, 2008

Respectfully submitted,

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CLAIMS APPENDIX

Claims Involved in the Appeal of Application Serial No. 09/328,053

1. A computer implemented method for assisting a user in the control and operation of a computer system, the computer system having a display device, the computer system providing information content for display, such information content potentially containing more content such as characters, pictures, lines, or pixels than can be conveniently displayed entirely on the display device at one time, comprising:

coupling a display device to a computer system;

mapping the information content generated by the computer system into a virtual desktop suitable for conveying the information content to the user;

displaying a certain portion of the virtual desktop using the computer system's display device;

tracking translational movements of the display device; and

adjusting the displayed certain portion of the virtual desktop in a manner related to the tracked movements of the display device by which the user is able to traverse the entire information content mapped to the virtual desktop and examine any certain portion or segment of the information content using the computer system's display device.

2. A computer implemented method as recited in claim 1 wherein a virtual magnification of the displayed certain portion is updated in a manner correlated to the tracked movements of the display device.

3. A computer implemented method as recited in claim 1 wherein a virtual magnification of the displayed certain portion is updated in response to a command entered into the computer system by a user of the computer system.

4. A computer implemented method as recited in claim 1 further comprising the act of redefining the orientation of the certain portion displayed via the display device such that, without moving the display device, the certain portion displayed via the display device changes.

5. A computer implemented method as recited in claim 4 wherein the orientation of the certain portion displayed is redefined in response to a request by a user.

6. A computer implemented method as recited in claim 1 wherein a first application executing upon the computer system is a physical map application providing a virtual map, the movement of the display device enabling visual navigation through the virtual map.

7. A computer implemented method as recited in claim 6 wherein the navigation capability of the physical map includes north, south, east, and west directional navigation through the virtual map.

8. A computer implemented method as recited in claim 7 wherein the navigation capability of the physical map further includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

9. A computer implemented method as recited in claim 8 wherein the scalability feature is controlled according to tracked movements of the display device.

10. A computer implemented method as recited in claim 8 wherein the scalability feature is controlled by user input separate from tracked movement of the display device.

11. A computer implemented method as recited in claim 6 wherein the navigation capability of the physical map includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

12. A computer implemented method as recited in claim 11 wherein the scalability feature is controlled according to tracked movements of the display device.

13. A computer implemented method as recited in claim 11 wherein the scalability to feature is controlled by user input separate from tracked movements of the display device.

14. A computer implemented method as recited in claim 1 wherein the display device and the computer system are formed in a single computer device provided to a user of the computer device.

15. A computer implemented method as recited in claim 14 wherein the computer device is a hand-held computer device.

16. A computer implemented method as recited in claim 15 wherein the hand-held computer device is a personal digital assistant (PDA).

17. A computer implemented method as recited in claim 16 wherein the PDA has handwriting recognition capability.

18. A computer implemented method as recited in claim 16 wherein the PDA has voice recognition capability.

19. A computer implemented method as recited in claim 1 wherein the visual information generated by the computer system includes multiple application windows.

20. A computer implemented method as recited in claim 19 wherein a first window of the multiple application windows corresponds to a first application executing upon the computer system.

21. A computer implemented method as recited in claim 20 wherein the first application executing upon the computer system is a physical map application.

22. A computer implemented method as recited in claim 21 wherein the physical map application enables navigation through a physical map via user movement of the display device.

23. A computer implemented method as recited in claim 1 wherein the displayed certain portion or segment of the virtual desktop is adjusted in a manner related to the tracked movements of the display device in relation to a substantially planar surface.

24. A computer implemented method as recited in claim 23 wherein a virtual magnification of the displayed certain portion is updated in response to a command entered into the computer system by a user of the computer system.

25. A computer implemented method as recited in claim 24 wherein the display device and the computer system are formed in a single device provided to a user of the computer device.

26. A computer implemented method as recited in claim 25 wherein the computer device is a hand held computer device.

27. A computer implemented method as recited in claim 26 wherein the hand held computer device is a personal digital assistant (PDA).

28. A computer implemented method as recited in claim 25, wherein the hand held computer device is coupled to a second computer.

29. A computer implemented method as recited in claim 28, further comprising the act of utilizing the hand held computer device to select information displayed on the second computer.

30. A computer implemented method as recited in claim 22 further comprising the acts of:

monitoring a real scene in real space and time;

capturing images of the real scene; and

displaying within a first window of the multiple application windows the captured images of the real scene.

31. A computer implemented method as recited in claim 30 wherein a second window of the multiple application windows corresponds to an application program executing upon the computer system.

32. A method for visually navigating a virtual map generated by a physical map application executing upon a hand-held computer system, the hand-held computer system having a display device and a motion sensor, comprising:

transforming visual information generated by the physical map application into a virtual map suitable for display via the display device;

displaying a certain portion of the virtual map via the display device;

tracking translational movements of the hand-held computer system using the motion sensor; and

updating the displayed certain portion of the virtual map in a manner correlated to the tracked movements of the hand-held computer system.

33. A computer implemented method as recited in claim 32 further comprising the act of redefining the orientation of the certain portion displayed via the display device such that, without moving the hand-held computer system, the certain portion displayed via the display device changes.

34. A computer implemented method as recited in claim 32 wherein the orientation of the certain portion displayed is redefined in response to a request by a user.

35. A computer implemented method as recited in claim 32 wherein a virtual magnification of the displayed certain portion is updated in a manner correlated to the tracked movements of the hand-held computer system.

36. A computer implemented method as recited in claim 32 wherein a virtual magnification of the displayed certain portion is updated in response to a command entered into the computer system by a user of the hand-held computer system.

37. A computer implemented method as recited in-claim 32 wherein the physical map application is a first application executing upon the hand-held computer system.

38. A computer implemented method as recited in claim 32 wherein the navigation capability of the physical map includes north, south, east, and west directional navigation through the virtual map.

39. A computer implemented method as recited in claim 38 wherein the navigation capability of the physical map further includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

40. A computer implemented method as recited in claim 39 wherein the scalability feature is controlled according to tracked movements of the hand-held computer system.

41. A computer implemented method as recited in claim 39 wherein the scalability feature is controlled by user input separate from tracked movements of the hand-held computer system.

42. A computer implemented method as recited in claim 32 wherein the navigation capability of the physical map includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

43. A computer implemented method as recited in claim 42 wherein the scalability feature is controlled according to tracked movements of the hand-held computer system.

44. A computer implemented method as recited in claim 42 wherein the scalability feature is controlled by user input separate from tracked movements of the hand-held computer system.

45. A computer implemented method as recited in claim 32 wherein the hand-held computer system is a personal digital assistant (PDA).

46. A computer implemented method as recited in claim 45 wherein the PDA has voice recognition capability.

47. A computer implemented method as recited in claim 32 wherein the displayed certain portion of the virtual desktop is adjusted in a manner related to the tracked movements of the display device in relation to a substantially planar surface.

48. A computer implemented method as recited in claim 47 wherein a virtual magnification of the displayed certain portion is updated in response to a command entered into the computer system by a user of the hand-held computer system.

49. A computer implemented method as recited in claim 48 wherein the display device and the computer system are formed in a single device provided to a user of the computer device.

50. A computer implemented method as recited in claim 49 wherein the computer device is a hand-held computer device.

51. A computer implemented method as recited in claim 45 wherein the PDA has handwriting recognition capability.

52. A computer implemented method as recited in claim 50 wherein the hand-held computer device is a personal digital assistant (PDA).

53. A computer implemented method as recited in claim 49, wherein the hand-held computer device is coupled to a second computer.

54. A computer implemented method as recited in claim 53, further comprising the act of utilizing the hand-held computer device to select information displayed on the second computer.

55. A hand-held computer system comprising:

a digital processor;

a motion sensor coupled to a display device;

the display device coupled to the digital processor; and

a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for:

mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device;

displaying a certain portion of the virtual desktop via the display device;

tracking translational movements of the hand-held computer system via the motion sensor; and

updating the displayed certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system.

56. A hand held computer system as recited in claim 55 wherein the computer readable medium further comprises computer executable instructions for redefining the orientation of the certain portion displayed via the display device such that, without moving the display device, the displayed certain portion via the display device changes.

57. A hand held computer system as recited in claim 56 wherein the orientation of the displayed certain portion is redefined in response to a request by a user.

58. A hand held computer system as recited in claim 55 wherein the computer readable medium further comprises computer executable instructions for updating a virtual magnification of the displayed certain portion in a manner correlated to the tracked movements of the display device.

59. A hand held computer system as recited in claim 55 wherein the computer readable medium further comprises computer executable instructions for updating a virtual magnification of the displayed certain portion in response to a command entered into the computer system by a user of the hand-held computer system.

60. A hand held computer system as recited in claim 55 wherein the computer readable medium further comprises computer executable instructions for a physical map application providing a virtual map, the movement of the display device enabling visual navigation through the virtual map.

61. A hand held computer system as recited in claim 60 wherein the navigation capability of the physical map includes north, south, east, and west directional navigation through the virtual map.

62. A hand held computer system as recited in claim 61 wherein the navigation capability of the physical map further includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

63. A hand held computer system as recited in claim 62 wherein the scalability feature is controlled according to tracked movements of the display device.

64. A hand held computer system as recited in claim 62 wherein the scalability feature is controlled by user input separate from tracked movements of the display device.

65. A hand held computer system as recited in claim 60 wherein the navigation capability of the physical map includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different

magnifications.

66. A hand held computer system as recited in claim 65 wherein the scalability feature is controlled according to tracked movements of the display device.

67. A hand held computer system as recited in claim 65 wherein the scalability feature is controlled by user input separate from tracked movements of the display device.

68. A hand held computer system as recited in claim 55 wherein the hand-held computer system is a personal digital assistant (PDA).

69. A hand held computer system as recited in claim 68 wherein the PDA has handwriting recognition capability.

70. A hand held computer system as recited in claim 68 wherein the PDA has voice recognition capability.

71. A hand held computer system as recited in claim 55 wherein the visual information generated by the hand-held computer system includes multiple application windows.

72. A hand held computer system as recited in claim 71 wherein a first window of the multiple application windows corresponds to a first application executing upon the hand-held computer system.

73. A hand held computer system as recited in claim 72 wherein the first application executing upon the computer system is a physical map application.

74. A hand held computer system as recited in claim 73 wherein the physical map application enables navigation through a physical map via user movement of the display device.

75. A hand held computer system as recited in claim 55 wherein the displayed certain portion of the virtual desktop is adjusted in a manner related to the tracked movements of the display device in relation to a substantially planar surface.

76. A hand held computer system as recited in claim 75 wherein the computer readable medium further comprises computer executable instructions for updating a virtual magnification of the displayed certain portion is updated in response to a command entered into the computer system by a user of the hand-held computer system.

77. A hand held computer system as recited in claim 76 wherein the display device and the hand-held computer system are formed in a single device provided to a user of the computer device.

78. A hand held computer system as recited in claim 77 wherein the computer device is a hand held computer device.

79. A hand held computer system as recited in claim 78 wherein the hand held computer device is a personal digital assistant (PDA).

80. A hand held computer system as recited in claim 78, wherein the hand held computer device is coupled to a second computer.

81. A hand held computer system as recited in claim 80, wherein the hand held computer device is utilized to select information displayed on the second computer.

82. A hand held computer system as recited in claim 74 wherein the computer readable medium further comprises computer executable instructions for:

monitoring a real scene in real space and time;

capturing images of the real scene; and

displaying within a first window of the multiple application windows the captured images of the real scene.

83. A hand-held computer system comprising:

a digital processor;

a motion sensor coupled to a display device;

the display device coupled to the digital processor; and

a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for:

a physical map application;

transforming visual information generated by the physical map application into a virtual map suitable for display via the display device;

displaying a certain portion of the virtual map via the display device;

tracking translational movements of the hand-held computer system using the motion sensor; and

updating the displayed certain portion of the virtual map in a manner correlated to the tracked movements of the hand-held computer system.

84. A hand held computer system as recited in claim 83 wherein the computer readable medium further comprises computer executable instructions for redefining the orientation of the displayed certain portion via the display device such that, without moving the hand-held computer system, the displayed certain portion via the display device changes.

85. A hand held computer system as recited in claim 84 wherein the orientation of the certain portion displayed is redefined in response to a request by a user.

86. A hand held computer system as recited in claim 83 wherein the computer readable medium further comprises computer executable instructions for updating a virtual magnification of the displayed certain portion in a manner correlated to the tracked movements of the hand-held computer system.

87. A hand held computer system as recited in claim 83 wherein the computer readable medium further comprises computer executable instructions for updating a virtual magnification of the displayed certain portion in response to a command entered into the computer system by a user of the hand-held computer system.

88. A hand held computer system as recited in claim 83 wherein the physical map application is a first application executing upon the hand-held computer system.

89. A hand held computer system as recited in claim 83 wherein the computer readable medium further comprises computer executable instructions for navigating the physical map wherein the navigation capability of the physical map includes north, south, east, and west directional navigation through the virtual map.

90. A hand held computer system as recited in claim 89 wherein the navigation capability of the physical map further includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

91. A hand held computer system as recited in claim 90 wherein the scalability feature is controlled according to tracked movements of the hand-held computer system.

92. A hand held computer system as recited in claim 90 wherein the scalability feature is controlled by user input separate from tracked movements of the hand-held computer system.

93. A hand held computer system as recited in claim 83 wherein the computer readable medium further comprises computer executable instructions for navigating the physical map wherein the navigation capability of the physical map includes a scalability feature allowing adjustment of the scalability of the physical map in order to provide a viewer of the display device views of the physical map having different magnifications.

94. A hand held computer system as recited in claim 93 wherein the scalability feature is controlled according to tracked movements of the hand-held computer system.

95. A hand held computer system as recited in claim 93 wherein the scalability feature is controlled by user input separate from tracked movements of the hand-held computer system.

96. A hand held computer system as recited in claim 83 wherein the hand-held computer system is a personal digital assistant (PDA).

97. A hand held computer system as recited in claim 96 wherein the PDA has handwriting recognition capability.

98. A hand held computer system as recited in claim 96 wherein the PDA has voice recognition capability.

99. A hand-held computer system comprising:

a digital processor;

a motion sensor coupled to the digital processor, the motion sensor capable of sensing motion relative to a substantially planar surface;

a display device coupled to the digital processor; and

a computer readable medium coupled to the digital processor, the computer readable medium having computer executable instructions for:

mapping visual information generated by the hand-held computer system into a virtual desktop suitable for display via the display device;

displaying a certain portion of the virtual desktop via the display device;

tracking translational movements of the hand-held computer system via the motion sensor; and

updating the displayed certain portion of the virtual desktop in a manner correlated to the tracked movements of the hand-held computer system in relation to a substantially planar surface.

EVIDENCE APPENDIX

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the Examiner is being submitted.

RELATED PROCEEDINGS APPENDIX

There are no other appeals, interferences, or judicial proceedings which will have a bearing on the Board's decision in this appeal.